

Operating instructions IO-Link interface E30390

CE



# Contents

<ol> <li>Preliminary note.</li> <li>1.1 Symbols used.</li> </ol>	3 3
2 Safety instructions	3
<ul> <li>3 Functions and features</li> <li>3.1 Items supplied</li> <li>3.2 System requirements</li> <li>3.3 Software</li> <li>3.3.1 LINERECORDER DEVICE</li> </ul>	
4 Installation	5
<ul> <li>5 Electrical connection</li> <li>5.1 Connect sensor to a PC via the interface</li> <li>5.2 Power supply via an additional plug-in power supply</li> </ul>	5 5 6
6 Set-up	6
7 Operation	7

# 1 Preliminary note

Technical data, approvals, accessories and further information at www.ifm.com

## 1.1 Symbols used

- Instructions
- > Reaction or result
- [...] Designation of keys, buttons or indications
- $\rightarrow$  Cross-reference



#### Important note

Non-compliance may result in malfunction or interference.



Information

Supplementary note

# 2 Safety instructions

- Read this document before setting up the product and keep it during the entire service life.
- The product must be suitable for the corresponding applications and environmental conditions without any restrictions.
- Only use the product for its intended purpose ( $\rightarrow$  Functions and features).
- Only use the product for permissible media ( $\rightarrow$  Technical data).
- If the operating instructions or the technical data are not adhered to, personal injury and/or damage to property can occur.
- The manufacturer assumes no liability or warranty for any consequences caused by tampering with the product or incorrect use by the operator.
- Installation, electrical connection, set-up, operation and maintenance of the product must be carried out by qualified personnel authorised by the machine operator.
- The device and the accessories (e.g. cable) must be effectively protected against damage.

## **3 Functions and features**

The interface connects sensors with IO-Link capability to a PC and provides the following options via the IO-Link interface:

- Reading of the current parameter setting.
- Parameter setting of the sensor.
- Reading of the current measured values and further process values.

The interface is not suitable for permanent installation as an automation device.

#### 3.1 Items supplied

- IO-Link interface
- USB cable
- Plug-in power supply
- M12 cable
- Operating instructions

#### 3.2 System requirements

- PC with Microsoft Windows® 7 SP1 / Microsoft Windows® 10
- Free USB 2.0 port
- Software for parameter setting and set-up of IO-Link sensors, LINERECORDER DEVICE:
  - QA0011 (USB stick) ( $\rightarrow$  3.3)
  - QA0012 (download) ( $\rightarrow$  3.3)

### 3.3 Software

The following software is suitable for use with this interface:

#### 3.3.1 LINERECORDER DEVICE

The software LINERECORDER DEVICE is supplied with the following items:

- Framework software LINERECORDER DEVICE
- Current set of IODDs
- Driver for interface

# 4 Installation

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You need administrator rights for installation.

- ► Connect the interface to the PC via a USB port.
- Connect the USB stick LINERECORDER DEVICE to the PC or use the download version LINERECORDER DEVICE.
- ► Execute the installation file "ifm Software.exe".
- > The Microsoft Windows® hardware wizard is started.
- Follow the instructions in the program. Select the following options:
  - Find locally available drivers.
  - Select the driver from the connected USB stick or the download version:

Current drivers can be found on the manufacturer's website.

## **5** Electrical connection

#### 5.1 Connect sensor to a PC via the interface



Connect the sensor to the interface using the M12 cable.

Socket 1	+ 24 V	
Socket 2	CH2 (DI/DO)	
Socket 3	GND	
Socket 4	IO-Link: CH1 (C/Q)	
Socket 5	not connected	

► Connect the interface to a PC using the USB cable.

#### 5.2 Power supply via an additional plug-in power supply

If a sensor needs a higher current than 80 mA for a short time (e.g. at power-on) or permanently, the power supplied via the USB port is not sufficient.

► Connect the supplied plug-in power supply to the interface.

## 6 Set-up



- Connect the interface to the sensor and a USB 2.0 port of the PC ( $\rightarrow$  5).
- > After a short initialisation period the interface supplies the sensor with operating voltage.
- > If the sensor is addressed via the software LINERECODER DEVICE (→ 3.3) the interface determines the correct communication mode and starts the exchange of data.

If the sensor does not have a suitable communication protocol, no data is exchanged.

# 7 Operation

LED	Colour	Status	Description
PWR	yellow	on	voltage supply via USB port
		flashing	undervoltage or overload with voltage supply via USB port
CH1 (C/Q)	green	IO-Link mode:	
		flashing slowly	no IO-Link connection
		flashing quickly	preoperate state
		on	IO-Link connection is exchanging data (operate state)
	yellow	on	switching status of the digital output
CH2 (DI/D0)	yellow	on	switching status of the digital output
Error	red	on	error: (short circuit, data transmission error, overload at DIO 1 (C/Q) or DIO 2)

## 8 Technical data and scale drawing

Technical data and scale drawing at www.ifm.com.

More information at www.ifm.com

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